**ARGEX NV**

Kruibeeksesteenweg 227
B-2070 Burcht-Zwijndrecht
Belgium

Technical Sheet

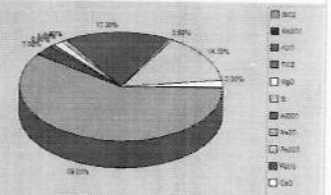
from 1/01/2010 to 31/12/2010

AR 4/10-430**Product : Expanded Clay**

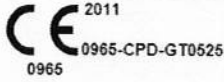
Client : Quality Control Argex
Tel.: +32/32.50.15.08
Fax: +32/32.50.15.28

Lab	Quality Control Argex Tel.: 0032/32.50.15.08 Fax.: 0032/32.50.15.28
Aggregate Size	4/10 mm
Certifications	CE:EN 13055-1, EN 13055-2, prEN 15732 : BSB NL (GK-001). KOMO (LT-001). ISO 9001:2008
CE:EN 13055-1, EN 13055-2, prEN 15732	Lightweight aggregates -Part 1 : Lightweight aggregates for concrete , mortar and grout -Part 2 : Lightweight aggregates for bituminous mixtures and surface treatments and for unbound and bound applications Light weight fill and thermal insulation products for civil engineering applications (CEA). Expanded clay lightweight aggregate products (LWA)

TESTS	Minimum	Average	Maximum	Declared	Standard
Particle Shape		Round			EN 13055-1
Crushing Resistance (T-2x30")	0.80	1.79 N/mm ²	3.50		EN 13055-1
Loose Bulk Density	366	434 kg/m ³	494	430	EN 1097-3
Particle Density	638	772 kg/m ³	862	750	EN 1097-6
Freezing & Thawing Resistance		0.3 %		4	EN 13055-1
Los Angeles + Micro Deval (4-6.3)		NPD*			EN 1097-1 & 2
Los-Angeles (4-6.3)		NPD*			EN 1097-2
Polished Stone Value		NPD*			EN 1097-8
Volume Stability		0.22 %			EN 13055-1
Water Content	0.0	4.3 %	25.0		EN 1097-5
Water Absorption (5')	8.00	13.68 %	20.00		EN 1097-6
Water Absorption (30')	13.00	16.55 %	24.00		EN 1097-6
Water Absorption (24h)	20.00	28.18 %	40.00		EN 1097-6
Shear strength-static loading/Triaxial/ Angle of friction(°)	38.5	40.0	41.8	35	prEN 15732
Cohesion, c'peak		0 kPa		0	prEN 15732
Compressive Creep (150 kPa - 24 hours)		0.26 %		0.5	prEN 15732
Compressibility&confined compressive strength-2%deformation		620 kPa		500	prEN 15732
Cyclic compression (120 kPa) after 2.000.000 cycles		3.5 %		4	prEN 15732
Shear Strength-cyclic loading/Triaxial Resilient modulus	160	190 MPa	220		prEN 15732
Alkali Silica Reactivity		Not Relevant			EN 13055-1
Chemical Analysis Argex		100.00 %			
SiO ₂	55	59.50 %	65		
Mn ₂ O ₃	0.15	0.20 %	0.25		
K ₂ O	1.5	3.00 %	3.5		
TiO ₂	0.8	0.90 %	1		
MgO	1	1.50 %	2		
S	0.7	1.00 %	1.3		
Al ₂ O ₃	15	17.00 %	19		
Na ₂ O	0.3	0.50 %	0.7		
Fe ₂ O ₃	12	14.30 %	16		
P ₂ O ₅	0.05	0.10 %	0.15		
CaO	1	2.00 %	3		
Chlorine		0.005 %		0.02	EN 1744-1
Cleanliness		OK			EN 1744-1
Emission Of Radioactivity		NPD*			EN 13055-1
Loss on Ignition		-0.18 %		5	EN 1744-1
Release Of Heavy Metals		NPD*			EN 13055-1
Release Of Other Dangerous Substances		NPD*			EN 13055-1
Release Of Polyaromatic Carbons		NPD*			EN 13055-1
Reaction To Fire		A1			EN 13501-1
Total Sulphur		0.31 %		0.8	EN 1744-1
Acid-Soluble Sulfate		0.061 %		0.8	EN 1744-1



NPD* = No Performance Determined



ARGEX NV
 Kruibeeksesteenweg 227
 B-2070 Burcht-Zwijndrecht
 Belgium

Technical Sheet
 from 1/01/2010 to 31/12/2010

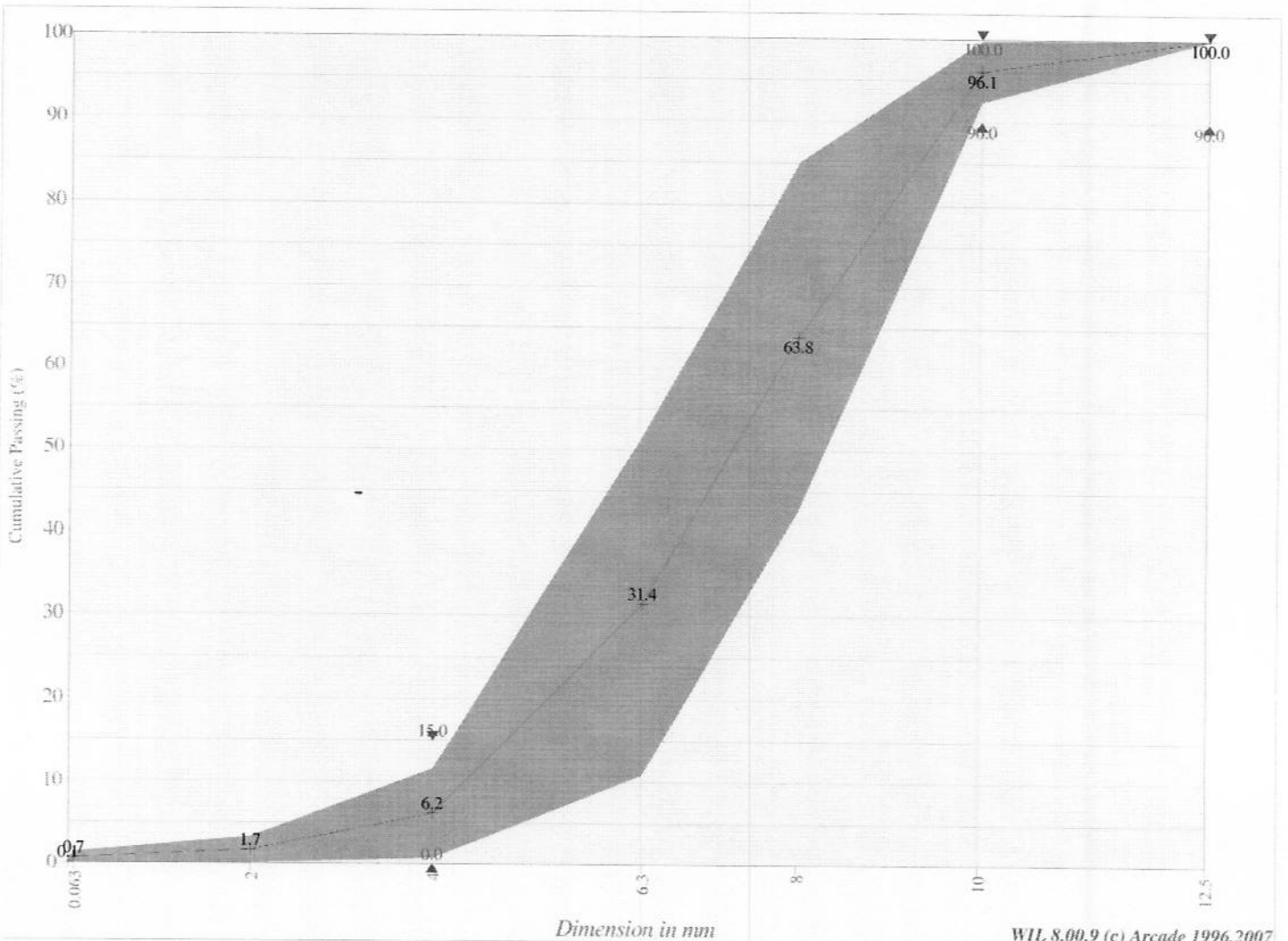
AR 4/10-430

Product : Expanded Clay

Client : Quality Control Argex
 Tel.: +32/32.50.15.08
 Fax: +32/32.50.15.28

Lab	Quality Control Argex Tel.: 0032/32.50.15.08 Fax.: 0032/32.50.15.28
Aggregate Size	4/10 mm
Certifications	CE:EN 13055-1, EN 13055-2, prEN 15732 : BSB NL (GK-001). KOMO (LT-001). ISO 9001:2008
CE:EN 13055-1, EN 13055-2, prEN 15732	Lightweight aggregates
	-Part 1 : Lightweight aggregates for concrete , mortar and grout
	-Part 2 : Lightweight aggregates for bituminous mixtures and surface treatments and for unbound and bound applications
	Light weight fill and thermal insulation products for civil engineering applications (CEA). Expanded clay lightweight aggregate products (LWA)

Grading (Standard EN 933-1)		Mass		
Sieve (mm)	Minimum	% passing	Maximum	Declared
0.000			0.1	
0.063			0.7	
2.000			1.7	
4.000	0.0		6.2	15.0
6.300			31	
8.000			64	
10.000	90		96	100
12.500	90		100	100



NPD* = No Performance Determined